THE BENEFITS OF MOVEMENT AND PHYSICAL ACTIVITY IN SCHOOL COUNSELLING: ADDRESSING MENTAL AND PHYSICAL HEALTH PROBLEMS

by

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The Benefits of Movement and Physical Activity in School Counselling:

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Abstract

This capstone project aims to promote healthier, more active lifestyles among elementary-aged children by addressing the growing concerns around sedentary behaviour and screen time. The project focuses on increasing movement opportunities within and outside the school setting and explores how physical activity can be effectively integrated into elementary school counselling practices. In addition, the capstone seeks to educate students, families, school personnel, and counsellors about the physical, mental, and emotional implications of prolonged inactivity. This project aspires to lay the foundation for lifelong wellness and a sustained commitment to active living by encouraging children to discover and pursue physical activities they enjoy.

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The Benefits of Movement and Physical Activity in School Counselling: Addressing Mental and Physical Health Problems

Chapter 1: Introduction

Introduction

Movement is at the heart of what it means to be human. As a child, I eagerly looked forward to Physical Education (PE) and recess—highlights of my day that I shared with friends who were just as passionate about staying active and having fun. Now, with over ten years of teaching experience, many of my students also share these sentiments. Research by Vazou and Smiley-Oyen, as cited in Savina et al. (2016), indicates that students prefer active lessons to seated ones. This preference is supported by substantial evidence showing the benefits of physical activity, particularly in a classroom setting. Savina et al. (2016) highlight that regular physical activity offers significant academic, behavioural, cognitive support, and brain development benefits for school-aged youth. Despite these findings, students' natural desire for movement is often unmet during and after school. Even with child preferences and existing mandates by the Canadian Government and the World Health Organization, which will be explained below, daily physical activity requirements are frequently not fulfilled.

The World Health Organization (WHO), Canada's physical activity guidelines, and the Centers for Disease Control and Prevention (CDC) all recommend that children aged 6 to 17 engage in at least 60 minutes of moderate to vigorous physical activity per day (CDC, 2024; Government of Canada, 2023c; World Health Organization, 2024a). According to the WHO, over 80% of adolescents fail to meet this recommendation, with a higher percentage of female youth (85%) inactive than male youth (78%). Additionally, only one-third of adults achieve the

recommended 150 minutes of physical activity per week (World Health Organization, 2024a). These figures have increased by five percentage points from 2010 to 2020, and inactivity is projected to rise to 35% by 2030. The WHO estimates that if this trend continues, the global healthcare cost of inactivity will be 27 billion USD annually (World Health Organization, 2024a).

These statistics are particularly alarming because reduced physical activity or excessive sedentary behaviour are associated with numerous physical and mental health issues, as well as an increased risk of early death. The Government of Canada's public health services report that over 25 chronic health conditions, including various cancers, are directly related to insufficient physical activity (Government of Canada, 2023c). In Canada, diabetes, cardiovascular and respiratory diseases, and cancer remain in the top five leading causes of early death, defined as death before age 75 (Statistics Canada, 2022a). Ranked from most to least common, the primary causes of premature death are cancer, cardiovascular diseases, chronic respiratory diseases, accidents and injuries, diabetes, and mental health disorders (Statistics Canada, 2022a; Brown, 2012). Notably, many of these conditions are directly linked to obesity and physical inactivity.

Moreover, cancer and cardiovascular diseases (including heart disease and stroke) account for over 50% of premature deaths in Canada. Within cancer-related premature deaths, several types of cancer are linked to physical inactivity, according to the CDC, American Cancer Society (ACS), Government of Canada, and WHO (CDC, 2022; American Cancer Society, Government of Canada, 2023c; World Health Organization, 2022). The ACS identifies 12 cancers directly associated with obesity and insufficient physical activity, with the most common being breast cancer, colorectal (colon and rectal) cancer, and pancreatic cancer (American Cancer Society, 2024). These cancers are among the five most common causes of cancer-related

deaths in Canada (Statistics Canada, 2022a; Canadian Cancer Society, 2024). In other words, three of the five most prevalent and deadly cancers in Canada are linked to obesity and reduced physical activity.

While physical health issues account for most early deaths in adults, mental health problems contribute significantly to youth mortality. Suicide, often linked to mental health issues, claims between 4,000 and 4,500 lives annually in Canada, making it one of the leading causes of death among youth (Public Health Agency of Canada, 2021). According to Statistics Canada and the Government of Canada, suicide is the second leading cause of death for young adults aged 15 to 34 (Government of Canada, 2023b). In British Columbia, an analysis of youth deaths in 2015 revealed that suicide was the second most common cause of death among individuals aged 15 to 18, following accidental deaths (BC Coroners Services, 2017). Given that physical activity has been shown to improve mental health and alleviate symptoms of various mental health disorders - an issue that will be explored further in the next chapter - it is crucial to recognize the importance of physical activity for everyone, especially children, during their developmental years.

Furthermore, substance use disorders and drug overdoses have become increasingly concerning in Canada. In 2016, there were approximately 2,800 opioid-related deaths, but this number rose to over 8,000 by 2023 (Public Health Agency of Canada, 2024). In British Columbia, there has been a sharp increase in deaths due to toxicity or overdose among both youth and adults. According to the Globe and Mail, overdose became the leading cause of death for youth in 2022 (Weeks, 2023). Although the link between drug use and mental health issues is not mutually exclusive, there is a notable comorbidity; individuals with substance use disorders or those who use illicit drugs often experience mental health problems. Volkow (2001) states that

there is a strong comorbidity between mental health concerns and substance abuse. This relationship is complex and not strictly causal or bidirectional meaning that some individuals may use substances to self-medicate for mental health symptoms. In contrast, others may develop new mental health issues because of substance use. Consequently, while there is a clear link between mental health and drug use, the nature of this connection varies. As drug-related deaths continue to rise alarmingly in Canada and British Columbia, enhancing mental health support and reducing drug use is crucial. Although establishing a direct connection between drug-related deaths and physical activity is challenging, some studies have indicated a potential link.

Interestingly, studies have shown that individuals who engage in regular physical activity are less likely to develop substance use disorders (Ströhle et al., 2007). Additionally, a twin study by Korhonen et al. (2009) found that children who were physically active in their youth were less likely to use illicit drugs and alcohol as adults. This evidence suggests a potential link between physical activity, addiction, and mental health, implying that increased physical activity could reduce both mental health issues and drug-related deaths. Furthermore, a survey conducted by the Wallace Foundation revealed that over 75% of students believe "a lot of kids get into trouble when they are bored and have nothing to do" (Hargrove, 2004, p.10). While "trouble" is not directly defined as drug use or addiction, it likely plays a significant role in these issues.

In addition to the existing health stresses that have been evident for years, these concerns have been amplified during the COVID-19 Pandemic, leaving many children obese, less connected to their bodies, and more connected to their devices (Calcaterra, 2021). With consistent technological improvements, sedentary activities are increasingly alluring with little, to no sign of addictions lessening. The WHO also mentions the mental health impacts of the

pandemic connected to restrictions and increased sedentary behaviour of working from home, loss of work, and homeschooling. Concerningly, they also emphasize that obesity and mental health factors were amplified in lower-income families. Following the pandemic, many of these problems have continued in many households (World Health Organization, 2024b).

These physical and mental health issues are problematic and in many cases are becoming worse. Current research, which will be further explored in Chapter Two, reveals numerous connections between physical activity and the diseases and mental health issues mentioned. Unfortunately, the Western approach often involves medicating as a reactive solution rather than proactively addressing the underlying causes. Revisiting fundamental aspects such as nutrition and exercise habits may offer a more cost-effective and health-promoting alternative. The goal is to proactively empower youth to adopt and maintain an active and healthy lifestyle, which can help prevent and alleviate many future health problems.

Regarding mental health specifically, while medication, counselling, and various therapies are becoming more prevalent and less stigmatized, the predominant approach—aside from prescription medication—is still largely sedentary talk therapy. It is noteworthy that, despite the progress in the normalization of talk therapy as a solution for mental health, the traditional model of counselling remains largely unchanged and involves minimal physical movement. While some professionals now offer walk-and-talk sessions for adults that incorporate movement, there is limited research on integrating physical activity into counselling for children, particularly within school settings. The lack of emphasis on physical fitness in our society contributes to ongoing physical and mental health issues, which remain significant causes of disease and death in Canada (Statistics Canada, 2022a).

Background Information

In my nearly ten years of teaching with the Vancouver School Board (VSB) and my experience as a student in the BC public education system, I have witnessed numerous changes related to physical activity and children. Many of these changes are attributed to declining physical activity rates, increased technology use at school and home, and a lack of locomotor skills. According to the Government of Canada's recommendations for physical activity and health, "establishing positive habits early in childhood and adolescence can last a lifetime" (Government of Canada, 2024). Unfortunately, based on my observations, the current system is not adequately prioritizing these essential needs and habits.

Diminished Opportunities for Physical Development in Schools. In schools, I have observed significant changes in the opportunities available for children's physical development. Budget cuts have led to fewer Physical Education (P.E.) specialists, which shifts the responsibility for physical development onto classroom teachers who often have limited training in this area. This situation has created inequities between schools and the prevalence of uninformed decisions. For instance, I have seen teachers benching students for entire periods due to behavioural issues, using P.E. time as a reward, or relying heavily on dodgeball rather than teaching fundamental skills. These practices, often more common among teachers without specialized P.E. training, can be problematic.

In British Columbia, where I currently work, the presence of P.E. specialists has diminished (Robinson, 2006). Robinson mentions that PE specialists are no longer a priority and are disappearing with years of budget cuts across Canada. The absence of these specialists limits the development of essential locomotor skills, which are crucial for building students' confidence

in their physical abilities. This lack of confidence can deter students from joining sports teams or engaging in physical activities that might foster a love for exercise. Mandigo (2010) highlights this issue, noting that "physical education programs provide one of the first lines of defense needed to prevent premature deaths, [and] they have been deteriorating in Canada due to lack of resources, qualified personnel, and support" (p.2).

Additionally, I have noticed that teachers often struggle to teach healthy eating, a crucial component of the Physical Health Education curriculum. The complexities of nutrition, which can vary greatly for individuals, pose challenges for educators. Despite the link between nutrition and physical activity, many educators find it difficult to address both effectively. Even with my background as a high-level athlete, which I will discuss further in the positionality statement, I face challenges in teaching nutrition due to political issues surrounding the Canada Food Guide and concerns about potentially shaming certain foods. There is a risk that discussing food critically at an early age might lead to anxiety about eating or unhealthy habits such as obsessive calorie counting. (Larkin et al., 2005). Larkin et al.'s study with female students in grades seven and eight in Ontario, Canada, discovered that many students felt the health curriculum is contradictory, ignores causes of eating problems, and increases anxiety around body weight (2005). Although this capstone focuses on physical health, it is important to acknowledge the critical role of nutrition. I argue that the lack of consistent information on nutrition and the gaps in teaching physical education skills contribute to a dangerous cycle that may underlie many health-related issues.

Finally, I have observed a decline in teachers' willingness to volunteer and coach sports at the school level. In my last two years of teaching, there were several instances where many

students expressed interest in competing in sports, but no teachers were available to coach. Since the COVID-19 pandemic, there has been a noticeable decrease in volunteerism within the teaching community. According to a report by Statistics Canada from November 2022, volunteer rates for non-profit organizations dropped by 65% post-pandemic (Statistics Canada, 2022b). Whether this decline is due to shifting values, increased stress from rising inflation, or other factors, it has directly impacted students' access to free sports programs at the school level.

Sedentary Activity After School. Additionally, children today are more sedentary than ever. Globally, Gray et al. found that only 23% of children meet the recommended daily amount of physical activity, with even lower rates in Canada—just 7% of females and 14% of males aged six to ten (Gray et al., 2015). This issue is not confined to Canada; it is a global concern. For example, research in Korea indicates that 31% of individuals aged 15 and older do not get enough physical activity, contributing to 3.2 million deaths annually (Park et al., 2020).

In Vancouver and many other Canadian cities, the rising cost of living has led families to work longer hours and take on additional jobs to manage housing and food expenses (Uppal, 2023). I have noticed, particularly in lower-income neighbourhoods where I have taught, a stark contrast in physical activity levels compared to more affluent areas. This is supported by some research with claims stating that more affluent areas had more leisure time, funds to support healthy activities and habits, neighbourhood safety, and increased access to recreational space and facilities (Stalsberg, 2010). The findings are inconsistent; some studies suggest that access to nutritious food may be a factor, while others mention that lower-income families walk more (to and from school) than more affluent families that may drive (Merchant et al., 2007). Regardless,

the reduced access to organized physical activity and healthy food may be a factor in students' overall health and wellness in less affluent areas.

This reduced access to physical activity in less affluent areas is coupled with financial stresses, which means less free time for families. According to Statistics Canada, there were 2.5 times more people working multiple jobs in 2019 compared to 1976 (Fulford & Patterson, 2019). This increased workload has heightened stress for parents, leading many to rely on video games, television, and cell phone apps for their children's entertainment rather than encouraging outdoor play, social interaction, and participation in sports. This is supported by Hatakeyama et al., who mentions that families with lower socio-economic status (SES) are more likely to spend more sedentary time playing video games, watching TV, and spending time on screens (2022), which, as previously stated, is connected to obesity. This added stress on families and reduced free time make it more challenging to afford sports teams or other active programs, and manage the time commitment required for practices and events.

Furthermore, as a child, my parents encouraged my brother and me to go outside and play each morning. We often cycled or walked several kilometres, staying out until dark except for a brief return for meals. This freedom allowed us to explore, be creative, meet new kids, and stay active. According to research by both Bienenstock Natural Playgrounds and the British Columbia Injury Research and Prevention Unit, today’s children spend less time playing outside and do so less frequently compared to previous generations (as cited in Grey et al., 2015).

In discussions with students and parents in my current school community, many express concerns about letting children play outside without adult supervision, often citing fears about safety that they believe did not exist when I was growing up. Interestingly, Statistics Canada

reported in 2013 that crime rates were at their lowest in recent years, although they have increased slightly in the past decade. Despite this, there is no substantial evidence suggesting our current environment is less safe than it was in the past (Statistics Canada, 2015). Carver et al. suggest families fear "stranger danger" and vehicle safety in large cities, which could account for the rise of the indoor child and may contribute to what they name as the outdoor child being an endangered species (2008).

This reduction in outdoor playtime likely results in more sedentary behaviour indoors. Grey et al. note that increased safety concerns are linked to decreased activity levels in children (Grey et al., 2015). Additionally, Oschman suggests that activities like walking barefoot outside or swimming in natural bodies of water have healing properties, as the earth provides the body with electrons, nature's "original and best antioxidant" (Oschman, 2023). In urban areas, where many families live in apartments and green spaces are limited to parks that may be less appealing due to issues like litter or animal waste, children miss out on these grounding experiences.

The combination of reduced outdoor time, increased screen time, and parental work pressures—leading to less supervision and more sedentary activities—is troubling. This scenario limits children's physical activity and increases their unsupervised internet access, creating additional challenges and risks.

Statement of the Problem

Low levels of physical activity are linked to a range of medical conditions and premature deaths in both adults and youth. In adults, leading causes of death and illness include heart disease, cancer, and diabetes, both globally and in Canada (World Health Organization, 2019).

For both youth and adults, mental health issues and suicide are also significant concerns (Statistics Canada, 2022a; BC Coroners Services, 2017). Research increasingly connects these health problems to physical inactivity (Martinsen, 2008; Ströhle, 2009; White et al., 2017; McMahon et al., 2017), highlighting the urgent need to promote more movement and healthy living for the well-being of current and future generations. The most notable problem is that we are solving the mental and physical health crisis with retroactive solutions instead of proactive strategies. In other words, instead of focusing on solving problems at the root cause, we are tackling problems after they have already developed. With movement decreasing and physical and mental health problems at the forefront, finding more ways for students to be physically active in schools and at home is crucial.

Furthermore, as a new counsellor, my internship has been largely sedentary, prompting me to consider alternative approaches and their potential benefits. Numerous studies have demonstrated the advantages of connecting with nature and engaging in outdoor activities (Oschman, 2023; Tillmann et al., 2018). Additionally, while research has shown the benefits of walk-and-talk sessions with adults, more research is needed on incorporating physical activity into counselling children. Exploring these approaches could offer valuable insights and benefits in a counselling context. In summary, physical activity and movement can be improved in the sedentary counselling profession. Knowing the benefits movement has on mental health outcomes but using sedentary methods is problematic.

Purpose of the Capstone

This capstone aims to provide insight into the current lack of physical activity, particularly in counselling, and to explore the potential benefits of incorporating movement-

based activities with school-aged clients. The goal is to encourage counsellors to integrate physical activity into their practice as an alternative to the typically more sedentary counselling approaches. This paper will review research from Canada and other countries to understand the significance of the movement epidemic in our society. It will examine the problem, assess its current and potential costs, and investigate the benefits of physical activity for youth. Best practices will be considered, and potential strategies for incorporating physical activity into counselling will be discussed. The final section will outline possible next steps and address the limitations of the research.

Research Question

Given the benefits of physical activity and the prevalence of a highly sedentary population, I am interested in exploring how the counselling profession can shift its approach to model and incorporate healthy practices within school counselling sessions. Specifically, my question is: “How can school counsellors integrate movement, ideally outdoors, with their clients, and what are the best practices and potential limitations of doing so in a school setting?”

Research indicates that mental and physical health are directly connected to physical activity (Calcaterra, 2021; World Health Organization, 2024a), highlighting a clear need for intervention and underscoring the alarming lack of urgency in addressing this issue. The decrease in physical activity, particularly among youth, combined with the traditionally sedentary nature of counselling therapy, presents a significant concern.

Positionality Statement

As a varsity soccer athlete, a triathlete who competed with Team Canada at world championships, and a coach of various school sports, I have witnessed sports' benefits for me and my students. Growing up, I was very hyperactive, and my parents used sports to manage my energy and balance my needs. While some suggested medication, my family believed in the value of sport and movement. I engaged in multiple sports throughout high school and my undergraduate studies, which helped fund much of my Psychology degree. After completing my first degree, a series of severe concussions led me to triathlon—a less physically risky sport that still allowed me to channel my athletic energy. This unexpected transition eventually led to representing Canada at the Triathlon World Championships. I am grateful for my health, active lifestyle, and the insights I have gained about my mental and physical well-being through this journey.

I acknowledge that my success has been greatly supported by my parents, who valued sports, practiced with me in their free time, and attended my practices and games despite their full-time jobs. My supportive family environment, combined with my privilege as a middle-class Caucasian woman from Kelowna, BC, has played a significant role in my athletic achievements. Additionally, my physical advantages, such as being tall and able-bodied and not experiencing physical impairments, have further contributed to my success. I am also fortunate to have not faced significant mental health struggles, which may be linked to my active lifestyle and passion for sports.

Significance of the Study

With abundant research linking physical activity to physical and mental health, it is crucial to find ways to promote more movement and healthy living to support current and future generations. The pandemic's impact on increasing obesity, technology overuse among youth, and reduced physical activity in schools is concerning for the future. As a new counsellor entering the profession, my experience during my internship has been largely sedentary, leading me to question potential alternatives and their benefits. Transforming the traditionally inactive nature of counselling practices in schools could benefit many clients by improving their relationships with family, peers, and teachers. Ideally, this shift would help clients build more profound, meaningful connections while alleviating stress and concerns within their support networks.

Modelling and teaching healthy, active behaviours during counselling sessions can help students acquire new skills and strategies for maintaining a balanced, physically active lifestyle. The goal is to help students discover active passions and techniques they can use throughout their lives, laying the foundation for lifelong physical activity. Ideally, this behaviour would inspire students' families and friends to become more physically active.

Research indicates that physical activity supports brain function, which may enhance students' communication and problem-solving abilities while in session. Additionally, incorporating physical activity into counselling can create a more relaxed atmosphere, reduce client stress, and potentially diminish stigma. These benefits will be explored in greater detail in future chapters. Beyond the counselling room, physical activity during sessions may positively impact students' classroom behaviour and performance.

Although the benefits of physical activity on mental and physical health are well-documented, they are often underutilized in the counselling profession. Many counsellors may not fully recognize or understand how movement can benefit students, themselves, and the counselling relationship. Sharing this research encourages professionals to evaluate their practices and consider integrating movement whenever possible. Furthermore, educating or re-educating teachers, counsellors, administrators, and policymakers about the dangers of sedentary lifestyles could foster a greater emphasis on health and drive meaningful change.

Key Terms and Definitions

- Executive Functioning: "A set of top-down mental processes that allow for controlled and goal-directed behaviour"(as cited in Egger et al., 2019, p.1).
- Forest Bathing/ Forest Therapy (shinrin-yoku): Forest Therapy is also developed from forest bathing (shinrin-yoku), which is a research-based healing practice through immersion in forest environments with the aim of promoting mental and physical health and improving disease prevention while at the same time being able to enjoy and appreciate the forest (Li, 2022).
- Moderate Physical Activity: "Moderate-intensity aerobic activity makes you breathe harder and your heart beat faster. You should be able to talk but not sing" (Government of Canada, 2011b).
- Muscle Strengthening Activities: "Moderate-intensity aerobic activity makes you breathe harder and your heartbeat faster. You should be able to talk but not sing" (Government of Canada, 2011b).
- Noncommunicable Diseases (NCD): "Chronic diseases [which], tend to be of long duration and are the result of a combination of genetic, physiological, environmental, and

behavioural factors. The main types …are cardiovascular diseases, cancers, chronic respiratory disease and diabetes" (World Health Organization, 2024c).

- Sedentary Behaviour: "Sedentary behaviour refers to activities that we do while we are sitting, reclining or laying down and expending very little energy. Some examples include watching television, using a computer or tablet, and sitting in a bus, car or train." (Government of Canada, 2018b).
- Vigorous Physical Activity: "With vigorous-intensity aerobic activity, your heart rate will increase even more, and you will not be able to say more than a few words without catching a breath" (Government of Canada, 2011b).

Outline for the Remainder of the Capstone

The remainder of the Capstone will explore the growing issue of increased sedentary behaviour among children and youth, beginning with an overview of the problem and contributing factors. It will examine how healthcare systems address this trend and other potentially more effective strategies. The discussion will then turn to the role of schools in promoting movement and physical literacy and the impact of home routines and screen time on activity levels. The effects of the COVID-19 pandemic will also be analyzed, particularly its role in exacerbating sedentary habits. The Capstone will then address the significant physical and mental health impacts of a sedentary lifestyle, highlighting the long-term costs to well-being. Following this, the focus will shift to the integration of movement into school counselling practices, exploring its benefits for overall health, student performance, and the counselling process. The second chapter will conclude with best practices for incorporating movement into counselling sessions, offering practical and ethical guidance for supporting students through active engagement. Finally, the third chapter will present multiple formats for sharing this

research, designed for various audiences, including students, school staff, parents, and counsellors.

Chapter Two: Review of Literature

Introduction

The physical and mental health of adults and children remains a concern, with a substantial body of research indicating that reduced physical activity and increased sedentary behaviour- particularly screen time- may be connected (Canadian Pediatric Society, 2019; Colley, 2011; Colley, 2020; Poitras et al., 2017). In adults, non-communicable diseases such as cardiovascular diseases, cancers, and diabetes rank among the leading causes of death and illness both globally and in Canada (Statistics Canada, 2022a; World Health Organization, 2020). Mental health issues and suicide also represent significant causes of premature death in both youth and adults (BC Coroners Services, 2017; Statistics Canada, 2022a). Furthermore, there are rising concerns regarding addictions and mental health, particularly in British Columbia. As cited in Chapter One, several studies suggest that many health issues are associated with physical activity and movement.

Physical Activity and Healthy Living Requirements for Youth. Research globally indicates that 80% of children do not meet the one-hour daily requirement for moderate to vigorous physical activity (World Health Organization, 2024a). According to the WHO, the Government of Canada, and the Canadian Society for Exercise Physiology, simply moving is insufficient; to fulfill the weekly requirements, children should also engage in strengthening activities that enhance muscle and bone health at least three times a week, as well as vigorous activities that elevate their heart rate at least three times a week (Bull et al., 2020; Canadian Society for Exercise Physiology, 2021; Government of Canada, 2011b). Moderate physical activities include walking, skating, skateboarding, or bike riding. Vigorous activities comprise running, basketball, soccer, or cross-country skiing. Lastly, strengthening activities for children

encompass climbing, swinging, and jumping on playground equipment (Government of Canada, 2011b).

Furthermore, the Canadian 24-hour movement guidelines, like those from WHO and the Government of Canada, have the exact movement requirements but also include sleep and sedentary behaviour recommendations. They suggest that children aged five to thirteen should get 9 to 11 hours of sleep and no more than 2 hours of screen time per day (Canadian Society for Exercise Physiology, 2021; Government of Canada, 2018a). Colley et al. (2020) reference multiple studies indicating that excessive sedentary time is linked to an increased risk of depression, poorer mental health, and worse physical health outcomes.

Tremblay et al. (2016) indicate that their objective measurements from Statistics Canada reveal that only 9% of Canadian children aged 5 to 17 complete the recommended 60 minutes of vigorous activity. Gray et al. (2015) report that only 7% of girls and 13% of boys between the ages of six and ten meet this requirement, while Roberts et al. (2017) find similar statistics, with only 9.5 % adhering to the 24-hour movement guidelines. These statistics suggest that Canada may perform worse, with 90-91% of children failing to meet the physical activity requirements, compared to the global average of 80% (Tremblay et al., 2018). They also note that Canadian children aged five to seventeen spend an average of over eight hours daily being sedentary. Furthermore, these figures are believed to be worsening due to the effects of the pandemic, which will be discussed below.

Research on Physical and Mental Health and Movement in Youth

A: The Problem: Addressing the Problem of Reduced Physical Activity in Youth and Adults

Given the research mentioned in Chapter One, which connects various mental and physical health concerns to obesity and a sedentary lifestyle, there is concern that if excessive sedentary behaviour continues among youth, the physical and psychological health of future generations may be at risk. The issue is that reduced physical activity and failure to meet the recommended guidelines lead to worrying health consequences. The national (Canadian Government Guidelines) and global (WHO) health mandates are not being met and are worsening; this can be attributed to several factors, which will be explored throughout this section. The key issues addressed in this section include the effectiveness of current problem-solving strategies within most North American healthcare systems, physical education and locomotor development/ movement opportunities in schools, movement opportunities outside of school, the impact of devices on physical activity, and finally, the effects of the COVID-19 pandemic.

Differentiating Physical Activity and Sedentary Time. It is important to note that some studies have identified that sedentary behaviour and physical inactivity may not be mutually exclusive. Historically, it has been assumed that those who spend much time sedentary will also have reduced physical activity (Biswas et al., 2015; Hamer et al., 2010). Some studies suggest the significance of separating the two concepts, which may impact the results (Breland et al., 2013; Hamer et al., 2010). Hamer (2010) found that physical activity and sedentary behavior are independent variables associated with depression and, therefore, may be crucial to distinguish. Biswas et al. (2015) completed a meta-analysis of studies recognizing sedentary time and

physical activity as separate variables, concluding that "prolonged sedentary time, independent of physical activity, is positively associated with various health outcomes" (pp.7-8). Thus, the goal is to create opportunities for all forms of physical activity and reduce sedentary behaviour.

Subtheme A1: Problem-Solving Strategies within Healthcare

Part of the issue can be attributed to the problem-solving techniques we have used in medicine, known as "reactive medicine," as opposed to "preventative medicine" (Frieder et al., 2018; Galas & Hood, 2009). In 2009, Galas and Hood predicted a significant change within 5 to 20 years in how our healthcare system operates, stating that "science is not enough (2009, p.2)" and that we need to integrate science with a systems approach to understanding diseases. Addressing both physical and mental health issues reactively through medication to fix or mask the problem is common practice rather than comprehending the issue from its root and implementing systemic changes (Galas & Hood, 2009). They do caution that, despite our remarkable technical advances in medicine, "economic, ethical, policy and practical issues" may hinder our ability to achieve a more advanced understanding within the field (Galas & Hood, 2009, p.2).

This approach is P4 (predictive, preventative, personalized, and participatory). It is anticipated to be more beneficial for both the patient and the system regarding effectiveness and long-term cost benefits. Interestingly, it has been over 15 years since the article was published, yet current discussions still emphasize the significance of proactive over reactive medicine. In 2019, Waldman and Terzic utilized Benjamin Franklin's quote, "An ounce of prevention is worth a pound of cure" (p.2), to highlight the value of preventative strategies. Alternatively, Frieder et al. explain that "much of medicine today is based on the practice of intervening to interrupt the progression of established disease" (as cited by Waldman & Terzic, p.2).

Consequently, medication and “quick fixes” have become the norm rather than preventative strategies.

In treating mental health issues such as anxiety and depression within the medical field, the solutions often lean towards medications rather than the use of talk therapy (Hoeflich et al., 2023; Kadam et al., 2001). A study by Kadam et al. (2001) examined 27 individuals grappling with anxiety and depression; among this group, 13 (nearly 50%) were prescribed and taking medication, while only two (8%) engaged in talk therapy. Although medication is a standard solution, many participants in this study preferred an alternative option if a doctor recommended it (Kadam et al., 2001). In a more recent survey of college students, Hoeflich et al. (2023) compared medication and therapy strategies among students dealing with anxiety, depression, or both. They discovered that the percentage of students facing both depression and anxiety rose from 11.9% in 2013 to 24.4% in 2019. Of those who screened positive for both depression and anxiety in 2013, 25.4 % utilized medication, while only 18% opted for therapy. These figures increased in 2019 to 31.9% for medication use and 24.8% for talk therapy. While both percentages are rising, the inclination toward medication remains stronger. This trend over the years indicates that people are becoming more aware of their options, yet the emphasis persists on medication.

Arguably, the strategy of using medication only after problems have developed, rather than addressing the root causes through institutional change for both physical and mental health, is problematic. Conversely, investing time, resources, and strategies to support youth before issues arise is essential. To address this problem, prioritizing children's physical literacy and the opportunities available is crucial. Furthermore, the mental health of children remains a concern, and the strategy and support should be reassessed. The issue is that if sedentary behaviour

continues to rise as it has during COVID-19, with increased time spent on phones and social media (Colley et al., 2020; Wang et al., 2019), mental and physical health issues in our society will worsen significantly in the coming years. Changing the narrative and proactively supporting current youth in schools by increasing physical activity, reducing sedentary time, educating children and families about the problem, and providing active talk therapy that models an active lifestyle for struggling youth will be explored below with supporting research.

Subtheme A2: Movement and Physical Literacy in Schools

Funding Cuts, Systemic Changes and Consequences. The problem is argued to start at the foundational level in elementary schools, where there is a lack of funding and resources (Doolittle, 2007; Robinson & Melnychuk, 2006). By 2006, the issue was already evident; Robinson and Melnychuk (2006) raised concerns about the decision to cut physical education specialists in Canada, claiming that the absence of these specialists negatively impacted the physical education program. They also quoted Healthy Active Kids, which contended that Canadian schools and families receive an 'F' for their attempts to provide physical activity to youth, stating that we are "dropping the ball" (Robinson & Melnychuk, 2006).

Mueller (2008) also wrote an article for the Canadian Medical Association Journal, expressing concern about the state of children's programming and stating that we are facing a "near epidemic of childhood obesity." Concerns regarding children not getting enough physical activity led to a "daily physical activity initiative," which Mueller argues damages the quality of our physical education programs in Canada. In 2003, Cameron et al. (as cited in Robinson & Melnychuk, 2006) noted that only 39% of teachers responsible for teaching PE were subject specialists. In other words, rather than having a quality, well-rounded physical activity program

taught by a PE specialist, generalist classroom teachers are expected to provide children with the fundamental locomotor skills that support physical development, often with limited training.

The changes and cuts in Canada appeared to originate from a "back to basics" approach adopted in the late 90s, where reductions were made in physical activity and the arts to enhance core academic subjects such as math and English (as cited in Mueller, 2008). These issues are not unique to Canada. In the United States, the "No Child Left Behind" campaign launched in the early 2000s mirrored Canada's "back to basics" approach (Doolittle, 2007). This strategy led to nearly half of American schools reducing recess, physical activity time, and other subjects not deemed the main testable subjects (Doolittle, 2007; Savina, 2016).

The timelines for school physical activity cuts interestingly mirror childhood obesity rates (Government of Canada, 2023a; Mueller, 2008; Statistics Canada, 2021). Mueller argues that these cuts led to an obesity epidemic among children, prompting a push to implement "daily physical activity" (2008). Unfortunately, teachers were tasked with increasing physical activity throughout the day instead of reinstating physical activity specialists. According to the Government of Canada (2023a), childhood obesity rates in Canada have tripled over the last thirty years. Statistics Canada (2021) indicates that childhood obesity rates rose from 10- 15% in the 1990s to 26% in the early 2000s. Currently, over 30% of children in Canada face obesity (Statistics Canada, 2021). Although the severe surge from the 1990s to the 2000s has levelled off somewhat and is increasing at a less alarming rate, the recent rise caused by the COVID-19 pandemic has not been accounted for in these Statistics Canada reports. While many factors contribute to childhood obesity, including genetics, diet, lifestyle, socioeconomic status, and more (Ang et al., 2013), the correlation between budget cuts and the drastic change in obesity rates seems too coincidental to ignore.

Another problem facing many schools is the lack of resources. According to Alberta teachers, about 40% of classroom teachers now required to teach PE feel restricted by insufficient resources (Robinson & Melnychuk, 2006). This statistic is also apparent in BC, which I have observed in several Vancouver schools. I teach at an elementary school in Vancouver with only one gym shared among 22 divisions. Our main issue is less about equipment and more about the limited space and time in the gymnasium. With over 500 students, classes are allotted only 30 minutes for primary students and 60 minutes for intermediate students per week in the gym. BC's Ministry of Education mandates that children from kindergarten through grade seven should have 30 minutes of physical activity embedded daily into the education program (Government of British Columbia, 2011). The document states that this 30-minute physical activity will be "part of students' educational program" (2011, p.5). Logistically, executing the BC Ministry of Education and the Daily Physical Activity (DPA) guidelines is incredibly challenging for classroom teachers due to the lack of space, resources, or additional training.

Furthermore, the responsibility to provide this education falls on classroom teachers juggling many other subjects. Additional barriers, such as weather and space, are also evident in large cities like Vancouver. In the lower mainland, the rainy season begins in September and lasts until May, comprising nine of the ten months that students are in school (Environment Canada, 2025a). 2024 Vancouver experienced over 1300mm of rainfall (Environment Canada, 2025b), with the driest months occurring during summer. The frequent rain presents additional challenges and reduces the appeal of teaching fundamental skills outdoors. While not impossible, it introduces further obstacles for teachers, including wet children, slippery surfaces, and potentially hazardous conditions for teaching certain games or skills.

Given this limited space and resources, along with teachers with limited training, basic locomotor skills and strength may not develop at a young enough age (Canadian Sports Centre, 2005; Green, 2012), which can contribute to behavioural issues and dysregulation. According to the Canadian Sports Centre, providing skill development opportunities has an optimal time frame. They assert that there is an "optimal point in physical development, which occurs before age 11 for girls and age 12 for boys" (Canadian Sports Centers, 2005, p.15); therefore, students should learn fundamental movement skills before leaving elementary school. Green also emphasizes the importance of physical activity for youth, as developing active habits at a young age correlates with positive mental health later in life (Green, 2012).

Responsibility and the Onus of Movement. Although the responsibility lies with teachers in BC to provide at least 30 minutes of instructional physical activity daily, using various resources and adopting a holistic approach could be beneficial. Implementing a more comprehensive and systematic strategy may be essential to increase movement and reduce sedentary time among youth. Kohl et al. (2012) state:

> Although there is a need to build global capacity based on the present foundations, a systems approach that focuses on populations and the complex interactions among the correlates of physical inactivity, rather than solely a behavioural science approach focusing on individuals, is the way forward to increase physical activity worldwide. (p.1)

In other words, Kohl (2012) suggests that instead of concentrating on individuals, adopting a systems approach for larger-scale impacts is crucial. One way to achieve this is by enhancing understanding and awareness of sedentary behavior and the significance of physical activity within school systems. As Kohl emphasizes, establishing a system and engaging all staff members to promote movement and physical well-being is essential and will be discussed in

more detail in the third part of this chapter. Additionally, involving government entities regarding cuts to physical activity programming is another possible solution, which will be briefly considered in Chapter Three. Furthermore, since the pandemic, the current climate in British Columbia has seen no change in the urgency to boost physical activity and counteract or mitigate the effects of COVID-19 (Colley, 2023), which will be examined in subtheme A4.

Subtheme A3: Movement at Home and Screen Time

In addition to the lack of movement in school, students spend much of their free time indoors rather than engaging in physical activity, playing, and enjoying the outdoors (Gray et al., 2015). Skår et al. (cited in Gray et al., 2015) claim this trend may stem from children's social environments being more focused on screens and less on outdoor activities. While schools are responsible for educating children on basic locomotor skills, families are also responsible for supporting their children's health by encouraging movement and reducing screen time. According to 24-hour movement guidelines, children from zero to two years of age should avoid screen time entirely, children aged two to four should have less than one hour of screen time, and children aged five to seventeen should engage in a maximum of two hours daily (Canadian Society for Exercise Physiology, 2021). Furthermore, the Government of Canada's general recommendation regarding sedentary behavior and screen use is to "reduce screen time" (Government of Canada, 2011b).

Unfortunately, these recommendations are often not followed. According to Colley et al., before the pandemic, Canadian youth self-reported an average of six hours of screen time on weekdays and seven hours on weekends (Colley et al., 2011). Concerningly, this means that if children spend six to seven sedentary hours on technology daily, that is 200% to 250% more screen time than suggested by health professionals. According to Wang et al. (2019), both

physical and mental health consequences arise when children experience excessive sedentary time combined with screen time. Many others have also identified implications, such as obesity linked to excessive screen time and decreased physical activity (Canadian Paediatric Society, 2019; Poitras et al., 2017). Additionally, Primack et al. (2017) discovered that using multiple social media platforms was directly correlated with symptoms of depression and anxiety. Due to the expansive nature of social media platforms and mental health, this topic will not be elaborated upon in this Capstone.

A Canadian study by Leatherdale and Ahmed (2011) measured screen time exposure from computers, video games, and television in children from grades six to twelve. Interestingly, even without considering individualized device usage, children spent an average of 8.5 hours ± 2.5 hours on technology, far surpassing the two-hour limit (Leatherdale & Ahmed, 2011). Alternatively, a recent study in Quebec, Canada, examined screen time and sleep time from 2018 to 2022. They discovered that sleep time increased by less than ten minutes while screen time surged by nearly 130 minutes. These results indicate that children spend as much time on screens as they sleep (Poirier et al., 2024). This statistic is incredibly concerning, especially considering that the Government of Canada (2018a) recommends nine to eleven hours of sleep for children aged five to twelve. Consequently, most Canadian children sleep less than recommended and spend significantly more time on screens. Poirier et al. (2024) are also alarmed and state that these findings require “urgent public health action” (p.8).

Breland et al. (2013) conducted a study to determine the effects of screen time on mental health, accounting for self-reported physical activity separately from sedentary time. They found that, although physical activity is known to reduce depressive symptoms, among children who experienced excessive screen time while also engaging in some physical activity, increased

sedentary time proved to be a stronger predictor of mental health outcomes. In other words, while physical activity is vital for physical and psychological health, excessive sedentary behaviour due to screen time is more impactful.

Hamer and Breland's findings acknowledge that educating parents and children to limit screen time is equally, if not more critical, than educating them about physical activity mandates (Hamer et al., 2010), which will be emphasized in Chapter Three. This aligns with Gray et al.'s (2015) suggestion to encourage children to play outside. Unfortunately, trends of inactive indoor activities have been exacerbated recently by the 2020 health mandates that promoted social distancing and, in some cases, required lockdowns (Tison et al., 2020). For example, in Italy, Tison et al. (2020) report that the average step count decreased by nearly 50% due to the imposed lockdowns. The effects of this will be discussed in more detail next.

Subtheme A4: Effects of the Pandemic

Beyond the already evident prevalence of sedentary lifestyles, these statistics have often worsened since the pandemic. During this period, many individuals decreased their physical activity due to eliminating commutes, participating less in organized sports, doing less housework, and increasing time spent sleeping and on screens (Calcaterra et al., 2021). This trend poses risks for youth and adults, as greater sedentary activities can lead to obesity (Colley, 2020). Colley et al. raised several concerns, highlighting that sedentary time was already at an unprecedented high before the pandemic, and the effects of prolonged isolation and inactivity on physical and mental health are worrisome. Hung et al. (2024) found that 45% of young adults in Hong Kong spent between 8-12 hours or over 12 hours in sedentary activities. Colley also found that more than 60% of study participants reported increased screen time usage during the pandemic. The effects of sedentary behavior and increased screen time will be explored further

in the next section. The concern is that these sedentary habits (reduced physical activity and increased screen time) developed during the COVID-19 pandemic may persist, yet very little has been done to reverse these effects.

A more recent article by Colley et al. (2023) compared the amount of sedentary screen time before and after COVID-19. They found that the percentage of children meeting the recommended two-hour maximum screen time limits on weekends declined from 21.4% in 2018 to only 13.2% in 2021. This indicates that nearly 87% of Canadian children consumed more screen time than recommended in 2021. Additionally, studies suggest that the type of screen time matters, and an individual's mental health can be further impacted depending on the content viewed on social media and other online interactions (Colley, 2020). Given this data, British Columbia's decision to ban cell phones in elementary schools, restricting the use of personal cell phones and tablets during school hours, is not surprising (Government of British Columbia, 2024). The alarming sedentary rates before the pandemic, excessive screen time usage, and sedentary isolation for many families create a concerning reality that must be addressed. In summary, increased sedentary time and screen time raise concerns about the physical and mental health of both children and adults in the short and long term.

Theme A Summary. We are currently facing a critical global issue: sedentary behaviour is at an all-time high, a problem that has been significantly worsened by the pandemic. Children are now spending more time on screens and less time being physically active outdoors, leading to serious physical and mental health consequences. Alarmingly, since the pandemic, children are spending an average of eight hours a day on screens, four times the recommended amount and equivalent to the time they should be spending asleep. Despite the severity of this issue, little

action is being taken. To drive meaningful change, it is essential to educate both teachers and families, which will be explored in the final chapter.

B. The Cost: Health Impacts of Sedentary Behaviour

The cost of not addressing these concerns is significant; for this capstone, the implications of ignoring this issue will be divided into mental and physical health concerns resulting from insufficient movement and activity. Mathers and Loncar, in collaboration with the WHO, developed health predictions based on observed trends regarding which diseases will be most burdensome globally in 2030. According to their predictions, the top three most burdensome diseases will be HIV/AIDS, unipolar depressive disorders, and ischemic heart disease (Mathers & Loncar, 2006). They also predict that in high-income countries like Canada, unipolar depressive disorders and ischemic heart disease will rank first and second. This information is troubling because both physical and mental health issues are linked to sedentary behavior, especially when combined with screen time (Wang et al., 2019).

Subtheme B1: Mental Health Impacts of Sedentary Behaviour

Regarding non-communicable diseases (non-contagious diseases), the WHO-sponsored projections of global mortality and burden for disease found that neuropsychiatric conditions contribute more to the overall burden than other conditions, including cancer and cardiovascular disease (Mathers & Loncar, 2006). This section will examine the current burdens and statistics of mental health, how physical activity can positively influence it, and how sedentary behaviour, particularly screen time, can affect an individual's well-being and health.

While considering the current mental health of the world, Murray et al. found that major depression has increased from the 15th most burdensome disease in 2000 to the 11th leading cause

in 2010 globally (as cited in Wang et al., 2019). Wang et al. also predict that by 2030, depression will be the second largest disease burdening the world, with higher numbers in countries with higher incomes, including Canada (Mathers & Loncar, 2006). Interestingly, their predictions are becoming very possible based on the current progression. According to an analysis of the 2021 Global Burden of Disease (GBD) study, depression has increased by 27% globally over the past decade, and it is now the leading cause of long-term disability (Institute for Health Metrics and Evaluation, 2024). Additionally, in 2010, depression was the fourth most "years lived with" disability and, as of the 2021 assessment, has moved up to the first position. The most recent GBD also discovered a significant increase in anxiety since the last GBD and found it was more prevalent in middle-aged groups in high SDI (socio-demographic index) countries, which includes Canada (Liu et al., 2024).

Globally, anxiety and depression are the most common and severe mental health conditions, and suicide is also linked to both (Liu et al., 2024). Regarding anxiety, Liu et al. (2023) observed that while high-SDI (Socio-Demographic Index) countries experience a high disease burden, low-SDI countries are identified as having a low risk for anxiety. They also noted that since 1990, anxiety has shown a significant upward trend, with women being affected significantly more than men (Liu et al., 2024). Given that Canada is classified as a higher SDI region, the elevated levels of anxiety we are experiencing are understandable.

Mental Health and Sedentary Time. Numerous studies have linked physical activity to improved mental health, with the risk of depression and anxiety decreasing as physical activity increases across all populations (Wang et al., 2019), particularly among adolescents (McMahon et al., 2017). Hamer et al. (2008) also found that psychiatric illnesses are more commonly present in inactive individuals. According to Hoeflich et al. (2023), the percentage of students

screening positive for both anxiety and depression rose by over 50% in just six years. Mangerud et al. (2014) studied youth facing mental health challenges and concluded that they engaged in less physical activity than their peers. They also discovered that adolescents with autism spectrum disorder and mood disorders were the least physically active. Furthermore, research indicates that children who do not participate in sports are more susceptible to addiction to illicit drugs and alcohol, as well as having an increased risk of suicide attempts (as cited in Bidzan-Bluma & Lipowska, 2018).

Furthermore, as previously mentioned, the prevalence of anxiety and depression among college students has been increasing. Although the cause of this rise is unclear, several studies suggest a connection between increased sedentary behavior, screen time, and poorer mental health (Colley et al., 2020; Wang et al., 2019). Wang et al. (2019) found significant links between screen time and sedentary behavior, resulting in substantial physical and mental health issues. The mental health problems associated with screen time in their study include sleep difficulties, anxiety disorders, and depression. They noted that the prevalence of depression is higher in younger individuals, who are more likely to overuse screens, compared to older adults, who use screens less frequently. They assert it

> ...coincide[s] with a pivotal period of physical and psychological development, and can lead to poorer psychosocial functioning, lower life and career satisfaction, more interpersonal difficulties, higher need for social support, more comorbid psychiatric conditions, and increased risk of suicide (Wang et al., 2019, p.2).

Finally, it was also noted that when screen time was kept between 0-2 hours a day, depression was significantly reduced, with the lowest risk detected at one hour per day (Wang et al., 2019).

Additionally, as mentioned in the previous sections, Colley et al. (2020) found that during the COVID-19 pandemic, individuals who balanced their screen time and physical activity reported significantly better mental and physical health, particularly among women, which will be expanded upon in the next section. They discovered that individuals who used two or three screens (television, phone, video games) and did not exercise, whether indoors or outdoors, self-reported a notable decline in physical and mental health. This information was gathered between March and April 2020 while individuals were isolated during the COVID-19 pandemic (Colley et al., 2020).

This study offers hope for addressing the growing mental health crisis in relation to movement and screen time. In other words, if society reduces sedentary screen time and promotes physical activity, the percentage of individuals suffering from mental health conditions could hypothetically decrease. The challenge is to identify ways to increase physical activity among youth and adults and to educate families about the dangers of prolonged screen time and sedentary behaviour; this topic will be explored further in the presentations of Chapter Three.

Gender Disparity. McMahon et al. (2017) found that females were significantly less likely to engage in physical activity, with 17.9% of boys meeting the required physical activity standards compared to 10.7% of girls. This is particularly interesting because several studies have indicated that women's mental health is impacted more severely by sedentary behaviour than that of men (Breland, 2013; Colley, 2020). Furthermore, research shows that globally, women are more prone to experiencing anxiety than men (Liu et al., 2014; Wang et al., 2019). This gender disparity in mental health may be linked to levels of physical activity. Understanding this difference is beneficial for a counsellor responsible for educating parents, teachers, and students about mental health and wellness.

Another potential layer of the mental health gender disparity could be linked to the effects of obesity stemming from inactivity. Olive et al. (as cited in Savina et al. 2016) mention that the impacts of weight gain on body dissatisfaction and self-esteem affect women's mental health more than men's. They note that negative body image among sedentary individuals, especially females, can influence self-image perception and ultimately negatively affect mental health (Hung et al., 2024). Multiple sources also found that women were more likely than men to be concerned about body image and tend to overestimate their body weight or size, which is suggested to result from societal pressures on women to be thin (as cited in Hung et al., 2024).

Subtheme B2: Physical Health Impacts of Sedentary Behaviour

Impacts of Sedentary Behaviour on Physical Health. Numerous studies have shown that sedentary behaviour, screen time, and reduced physical activity significantly impact both mental and physical health (Kohl et al., 2012; Savina et al., 2016; Wang et al., 2019). Kohl et al. (2012) state that "physical inactivity is the fourth leading cause of death worldwide" and describe it as a "pandemic of inactivity" (p.1). This issue is considered a pandemic because it affects multiple domains, including social, health, economic, and environmental consequences.

Patterson et al. (2018) reviewed studies on sedentary behaviour and medical consequences such as cancer, Type 2 diabetes, and cardiovascular disease. They found that prolonged TV viewing and sedentary time increase disease and mortality risk. Specifically, watching TV for over 3-4 hours per day and being sedentary for 6-8 hours per day resulted in a higher likelihood of health complications and morbidity. Patterson et al. also suggested that guidelines should be established to discourage excessive sedentary behaviour.

Similarly, Biswas et al. (2015) conducted a meta-analysis linking sedentary behaviour to mortality and chronic illnesses, reinforcing the importance of reducing sedentary time rather than focusing solely on increasing physical activity. Patterson et al. (2018) expanded on this by estimating that in England, sedentary behaviours account for 8% of mortality and 29% of Type 2 Diabetes cases.

Physical Activity's Role in Reducing Health Risks. Studies indicate that increasing movement can significantly reduce health risks. Saint-Maurice et al. (2020) examined individuals affected by metabolic dysfunction-associated steatosis liver disease (MASLD) and found that walking 10,000 steps per day lowered all-cause mortality rates. This suggests that daily step counts could be critical to overall health. Similarly, Sheng et al. (2021) analyzed the connection between step count and cardiovascular mortality, confirming that more steps reduce the risk of death from cardiovascular diseases, especially in middle-aged and older adults. However, their study noted a non-linear benefit, meaning the positive effects plateau beyond a certain threshold. This may explain why the 10,000-step benchmark has been widely promoted in other studies.

Screen Time on Physical Health. Screen time has been shown to negatively impact both mental and physical health**,** particularly in children and adolescents (Canadian Pediatric Society, 2019; Canadian Society for Exercise Physiology, 2021). Wang et al. (2019) found that excessive screen time and sedentary behaviour contribute to depression, anxiety, and sleep disturbances**.** Additionally, they linked screen time to increased risks of cardiovascular disease, obesity, and diabetes**.**

Children's Physical Health. In addition to current health concerns in adults, children's physical health is declining, meaning a further decrease in adults' health is likely, especially

following the recent COVID-19 pandemic. An (2020) mentions that childhood obesity's immediate concerns include hypertension, mental health decline, reduced school achievement, and potential bullying; furthermore, in adults, it can lead to cardiovascular disease, type two diabetes, and premature mortality (as cited by Hauerslev et al., 2021), also mentioned in Chapter One.

Hauerslev et al. quoted UNICEF in their article as saying that not enough is being done to counteract the pandemic's physical and mental health effects (2021). They suggest mental health and obesity are not priorities, and the evident policy gaps have not been addressed, stating that:

> Childhood obesity is on the rise, and this trajectory has been exacerbated by the COVID-19 pandemic because of decisions made by leaders at different levels, such as heads of state, ministers of health, mayors, United Nations agencies, and school principals and boards (Hauerslev et al., 2021, p.3).

The concern is that if the policymakers above do not make a change soon, the global rise in childhood obesity will continue to worsen, in addition to other non-communicable diseases.

Understanding the importance of movement and limiting sedentary behaviour is crucial for improving public health. Research strongly supports reducing prolonged sitting and screen time rather than promoting increased physical activity. Clear public health guidelines and education are needed to encourage movement and highlight the dangers of excessive sedentary behaviour**.**

Theme B Summary. Although, for this Capstone, mental health and physical health have been divided, there is a sentiment endorsed by health organizations worldwide, including the WHO, World Federation of Mental Health and Pan American Health Organization, emphasizing

that there is “no health without mental health” (Prince et al., 2007). This sentiment highlights the importance of mental health on physical health, and the article by Prince et al. (2007) mentions that mental health effects may be underrepresented because their connection to other health conditions is not often recognized. This means that mental health can frequently create physical health problems. Still, it also acknowledges that this is a comorbid relationship and is not unidirectional, meaning they can influence each other. Knowing the influence of mental and physical health on each other and understanding physical activities’ role and benefits may be an asset in understanding current physical and mental health diseases.

C: Impacts and Benefits of Movement in Therapy

This section explores the benefits of movement in counselling from an elementary school counsellor's perspective. Replacing the typically sedentary nature of therapy with movement is a logical approach. Notably, movement-based counselling techniques, such as “walk and talk” sessions, have gained popularity among adults (Prince-Llewellyn, 2024). However, their application in schools remains less common and under-researched.

Limited research exists on incorporating movement into elementary school counselling, and personal experience within the Vancouver School Board suggests minimal exposure to such practices. This is particularly noteworthy since children naturally enjoy movement, especially during recess and physical education (Duffett et al., 2004). Additionally, the Government of Canada (2011b) recognizes movement as a fundamental aspect of children’s development.

This section will consider research to understand how movement can support the individual in multiple domains. It will also consider the advantages of movement within sessions, including the benefit to the client in session, the counselling process/ relationship, and

the potential benefits of nature and the outdoors; finally, it will conclude by considering the limitations of the practice.

Subtheme C1: Benefits of Movement on Health

Physical and Mental Health Benefits. Increasing physical activity and movement is a logical solution since inactivity and prolonged sedentary behaviour pose significant concerns. Tremblay (2018) emphasizes this issue, stating that "the current habitual movement behaviours of Canadian children and youth warrant concern given the important physical, psycho-social, and academic benefits that are accrued through healthy daily movement" (p.2).

Frischenschlager et al. (2012) note that regular physical activity enhances bone mass, improves oxygen supply to the brain, and strengthens stress tolerance. Similarly, Cotman et al. (2007) found that engaging in regular physical activity for two to four months alleviated symptoms of depression. This effect was observed across both younger and older populations and was comparable to the benefits of antidepressants (as cited in Cotman, 2007). Moreover, higher levels of physical activity were associated with more significant improvements in mental health, suggesting that physical activity could be a valuable addition to counselling sessions.

The Government of Canada (2011b) states that the health benefits of physical activity for children between 5 and 11 include opportunities for socializing, improved fitness, increased concentration, better academic scores, stronger heart/bones/ healthier muscles, healthy growth and development, improved self-esteem, better posture and balance, and lower stress. The role of an elementary school counsellor in the Vancouver School Board is to support students with the "educational, personal, social and emotional development of students" (VSB, 2022, p.5). Interestingly, nearly all benefits mentioned above are key to why many children visit a

counsellor, especially stress or anxiety, self-esteem, social concerns, concentration, and academic concerns. In other words, simply moving with the client/ student would help them, regardless of the counselling strategies used.

Long-Term Benefits. Physical activity supports academic performance, but Hillman (2009) also suggests that it enhances cognitive health by improving executive functioning, which provides lifelong advantages. In other words, encouraging physical activity in youth may have long-term benefits. Bidzan-Bluma and Lipowska (2018) further highlight that movement and physical activity improve neuroplasticity, enhancing mental and physical health in children and adults.

The cognitive stimulation hypothesis suggests that cognitive functions such as memorization, executive functioning, and problem-solving improve with cognitively demanding physical activity (as cited in Peiris, 2022). This raises the question of whether discussing problems and conflicts while engaging in movement-based activities could further enhance a student's cognitive abilities.

Finally, incorporating movement into counselling sessions may help children discover and strengthen their passion for physical activities. Since being physically active is a lifestyle, it is essential to help children develop skills and find movement-based activities they enjoy. The Government of Canada (2011b) states that "habits formed early last a lifetime" (p.1), emphasizing the importance of encouraging healthy habits and tendencies from a young age.

Subtheme C2: Benefits of Movement on Student Performance

Executive Functioning. According to Miyake et al., executive functioning is "a set of top-down mental processes that allows for controlled and goal-directed behaviour" (as cited in

Egger et al., 2019, p.1). According to Egger et al., executive functioning can be further divided into three categories: inhibition (self-regulation), updating (working memory), and shifting (utilizing inhibition and updating to change tasks, operations, rules and perspectives). Developing these skills often makes a child ready and eventually thrive in school (Egger et al., 2019). Ultimately, physical activity improves motor ability, supports executive functioning, and improves academic achievement.

Egger et al., 2019 conducted a study that divided students into three trials. One group had students active with low cognitive engagement (aerobic), another active with high cognitive engagement (combo) and the last was inactive with low cognitive engagement (cognitive). They hypothesized that increased physical activity would improve executive functioning and cognitive performance. They evaluated both cognitive achievement and executive functioning before and after their trials. The outcome indicated that students in the combo group benefited the most. It also concluded that any physical activity was better than sedentary lessons. In terms of counselling capacity, this would suggest that simultaneous cognitive and bodily engagement would benefit the client. In other words, incorporating movement while the client solves problems or talks out their situation could be advantageous.

A study by Fanning et al. (2017) measured the effects of substituting sedentary behaviours with light physical activity (as opposed to vigorous activity) or sleep on executive functioning; they found that incorporating light physical activity (such as walking) influenced self-regulatory performance and behaviour. The improvements noted in self-regulatory behaviours include faster reaction time and spatial working memory (Fanning et al., 2017). The other takeaway from the study is understanding and promoting the benefits of sleep on cognitive functioning. Although it is well known that sleep is imperative for developing brains, Fanning et

al. (2017) mention that choosing to nap instead of being sedentary or using screens improves global reaction time and task switching; this is helpful information to share with students and families. Furthermore, although taking naps is not currently normalized within the school setting, given this information, allowing sleep during sessions in certain circumstances may be beneficial and even necessary.

In a meta-analysis on exercise and executive functioning in children conducted by Chen et al. (2023), they discovered that of 25 studies examined, exercise improved the cognitive flexibility and working memory of children. They also found that the age range of the children mattered; physical activity impacted the working memory of children ages 10-12 more than 6-9. Conversely, cognitive flexibility was more noticeably improved in children 6-9 over children 10-12. They also found minor improvements in inhibitory control. Finally, they also discovered that a 30-minute time frame was typical for testing and seeing positive results (Chen et al., 2014).

This is helpful information because, in a counselling capacity, being moderately active with the client for 30 minutes supports cognitive flexibility and working memory, which will be beneficial socially and academically. These benefits are in addition to any gained from the counselling strategies used in practice. In addition, helping students' executive functioning would likely support functioning both in and out of school.

Academic Performance. Regarding academic performance, Hillman et al. (2009) mention that a single bout of moderately intense exercise (walking for twenty minutes on a treadmill) can improve response accuracy and cognitive control of attention, which they concluded would mean enhanced academic performance. Pontifex et al. (2013) found that 20 minutes of moderately intense exercise improved stimulus-related processing and response

accuracy in children with ADHD and those without. He also noted improvements in neurocognitive function and inhibitory control in children with ADHD (Pontifex, 2013).

Bidzan-Bluma et al.'s (2018) systematic review of sport and its effects on children's cognitive ability was conducted to "raise awareness of the gravity of the problem" (p.1) in youth, given the recent increase in sedentary behaviour and declining health worldwide. They summarized that participating in childhood sports positively affects the child's mental and emotional functioning and improves memory and cognitive control. Myer et al. (2015) even claim that children who do not participate in the recommended amount of physical activity will never fully develop their genetic potential in motor skills. Additionally, Vazou & Smiley—Oyen (2014) discovered that a single bout of aerobic physical activity improved processing speed. Finally, a review by Cotman et al. (2007) discusses many benefits of exercise on brain health, including learning, memory, reduced depression and more.

Subtheme C3: Benefits of movement in session

Working Alliance. Although nearly all the research mentioned above about the benefits of movement for students was conducted in a classroom setting, it would be equally relatable to counselling in an elementary school setting. The following section considers the benefits mentioned by adult clients who utilize walk-and-talk therapy instead of sedentary counselling methods. I have examined the effects on adults because the research on children is minimal. Current research on walk-and-talks in adult populations shows several benefits, including stress reduction and increased well-being (Prince-Llewellyn, 2024). Although the empirical evidence and advantages of walk-and-talks are limited, the qualitative data from clients' accounts highlights many perceived benefits to the practice.

The therapeutic or working alliance is integral to counselling (Amundson, 1995). Several studies have examined the benefits of movement during outdoor walk-and-talk therapies, and several have noted benefits for both the client and therapist, including a stronger working alliance (Clark, 2019; Revell & Mcleod, 2016). Additionally, Clark (2019) mentions that walking and talking reduces an element of stigma that some individuals perceive. Charbonneau mentions that many individuals choose not to seek out therapy until they are in tremendous distress, and having a less stigmatizing option for individuals is an asset (as cited in Clark, 2019). Providing walk-and-talk therapy improves the working alliance and utilizes a less intimidating therapeutic model, which may make it easier for some clients to attend.

In a survey by Revell and McLeod (2016), practitioners and clients were surveyed about the effects of their walk-and-talk practice. On a 5-point scale, five strongly agree, and one strongly disagrees. In this study, several questions strongly related to client relationship and progress in session. According to clients, a mean of 4.1 indicated that walk-and-talks help them become "unstuck" and strengthen their mind-body connection (Revell & McLeod, 2016). Additionally, clients reported improved counsellor/ client relationships because "walking side by side" helps them "open up" (mean of 4.0/ 5.0). They also found that, with a mean of 3.9/5, walking and talking promote equity in the counselling relationship, are less intimidating for the client, and "being outdoors during a therapy session helps enhance the therapeutic relationship" (2016, p. 6). Furthermore, the therapist was also surveyed, and with a mean of 4.1/ 5, they claimed that walk-and-talks "offer mutual benefit to both the client and therapist" (p.7).

Finally, the highest-rated question from therapists stated that they felt that offering multiple therapeutic experiences, including walking and talking, is helpful to clients (mean 4.5/5). Another key aspect highlighted was the client's ability to choose to participate in walking

and talking, the speed at which they travelled, and their destination. This connects to White et al.'s. (2017) point of providing choice for clients. They also noted that the working alliance was strengthened by creating opportunities to work as a team while facing minor natural or human-made obstacles such as slippery ground and traffic signs. Finally, this also contributed to a sense of reduced formality, which made the experience less intimidating and created a more equal power dynamic (Revell & McLeod, 2016).

Additionally, evidence suggests that walking and talking can be equally beneficial for the therapist. Revell & McLeod (2016) noted that counsellors often claim they "have a clearer thought process" (4.1/ 5). The therapist also noted reduced stress levels in themselves. Although the intent is to support the client, providing the counsellor with the opportunity to be active, reduce stress, and have a clearer mind is a bonus.

Subtheme C4: Best Practice Within Counselling

Effective Practice within School Counselling. McMahon et al. (2017) found that the most significant difference in mental health quality existed between those who engaged in little physical activity and those who participated in none. This indicates that even minor physical activity can positively impact mental health and well-being. As a counsellor, it is essential to recognize and apply this, mainly when working with children facing significant mental health challenges. This aligns with de Souto Barreto's (2015) argument that it is more important to motivate the small percentage of individuals who are entirely inactive rather than focusing on bringing the larger population up to the expected thresholds. This also suggests that, in a counselling role, any activity is better than none, and even incorporating a brief walk for more vulnerable students can lead to substantial benefits.

Although research on movement in counselling for youth is limited, Doucette (2004) studied youth with behavioural challenges and found that being outdoors and physically active supported problem-solving and provided a physical release. Additionally, a Vancouver-based program called “Take a Hike” works with behaviourally challenged youth, many of whom have experienced trauma (Matchett, 2022). Their program is grounded in attachment theory, employs a trauma-informed approach, and utilizes nature as its classroom (Matchett, 2022). Interestingly, this program model emphasizes the benefits of building relationships and engaging with the outdoors but does not highlight the movement aspect of its practice as a benefit. Based on my research, this program integrates movement, nature, and counselling strategies, making it an excellent example of counselling in schools.

Implementing the Practice. White et al. (2017) conducted a literature review comparing various forms of physical activity and their impacts on mental health to better understand when and how to engage in physical activity for optimal mental health benefits. They examined work-related physical activity, transportation-related physical activity, and household physical activity to assess improvements in mental health. The results indicated that leisure-time physical activity predicted the best mental health outcomes, supported by the social interaction hypothesis, motivation, distraction hypothesis, and experiences leading to mastery (White et al., 2017). Furthermore, McMahon et al. (2017) compared individual sports to team sports. They concluded that children participating in team sports experienced higher levels of well-being along with lower levels of anxiety and depression. In other words, engaging in a selected activity that is typically social and involves skill development for mastery is crucial for better mental health. Consequently, this information could be valuable for a school counsellor. Incorporating

movement of the child's choice, possibly alongside a friend, into a session may enhance the child's mental health and overall outcomes.

Utilizing the Outdoors. A review by Cooley et al. analyzed outdoor walk-and-talk therapy with adult clients (2020). They found improvements in "mutual therapeutic space, greater freedom for clients in terms of movement and expression, stronger connections with nature, holistic health benefits for both clients and therapists and improved access to care for those who find indoor or digital therapy challenging" (as cited in Prince-Llewellyn, 2024, p.2). In a study by Van den Berg and Buete (2021), clients reported improvements in burnout, mental health, and stress. The same client participants also noticed increased well-being, self-awareness, self-efficacy, and self-esteem. In another study by Doucette, clients found that walking outdoors allowed for physical release and supported problem-solving (2004). Finally, and most interestingly, a recurring theme in the studies showed enhanced therapeutic relationships due to the balance in the environmental space and reduced pressure while walking (Jordan, 2015).

In addition to the benefits claimed by Revell & McLeod for both the client and therapist from movement mentioned in section C2, some researchers note that the outdoors has healing properties (Oschman, 2023; Siah et al., 2023). According to Oschman, the earth offers healing effects by removing free radicals from the body through grounding oneself, which is also known as walking barefoot outdoors or lying in the grass. Other researchers assert that simply being among trees or practicing "forest bathing" has therapeutic advantages. A meta-analysis examining English, Chinese, and Korean sources by Siah et al. explored the benefits of forest bathing on health, with findings suggesting that being in the forest can alleviate symptoms of depression and anxiety (Siah et al., 2023). Furthermore, utilizing the outdoors provides the

additional benefit of having nature or the outside world act as a second therapist, as nature often presents its own metaphors (Cooley, 2020; Vernoy & Widhalm, 2023).

Lastly, others have noted that being outdoors rather than indoors enhances mood and overall mental health (Cooley, 2020; Thompson Coon et al., 2011). Thompson Coon et al. (2011) found that opting for outdoor activities over indoor ones improves mental health and alleviates anxiety, anger, and depressive symptoms. Furthermore, Cooley observed a better mood, and individuals desired to repeat the experience after spending time outdoors (2020). Gray et al. (2015) also mention that children who spend more time outside than inside generally engage in less sedentary behaviour and, consequently, higher physical activity levels.

In conclusion, being active with the client supports many aspects of growth, development, behaviour, mood, academic performance, and well-being. While the work and strategies we implement in the session are invaluable, simply walking outside with them while employing these techniques can significantly enhance the overall quality and effectiveness of the session and the student's well-being.

Personal Experience. During my internship, I experienced these benefits firsthand. Given my passion for sports and a basic understanding of the benefits of movement, I incorporated movement into sessions with three clients. One client, who had endured extreme trauma, loved sports; together, we decided to spend our time playing volleyball and chatting outdoors. In this case, she had control and chose both the sport and the location, which helped her fully engage with the practice, an essential aspect of walking and talking, as noted by Revell & McLeod (2016). After working with her for several sessions, I asked if she preferred moving or sitting, and without hesitation, she replied that she would, of course, play volleyball. During

the outdoor sessions, she shared openly and freely. I found this to be true for all the students I took outdoors.

Another benefit of meeting outdoors with clients was that they eagerly anticipated attending counselling sessions. While completing my internship hours, I noticed that counselling students often face the added challenge of generating “buy-in.” In my counselling experience in elementary schools, students rarely self-refer and are typically referred by a parent or teacher. Interestingly, in every client case we engaged with, the child consistently inquired about when I would see them next and genuinely wanted to participate in counselling. This aligns with research on choice and enhancing the counselling relationship (Revell & McLeod, 2016; White et al., 2017).

Theme C Summary. Incorporating movement throughout the school day is essential for supporting children's executive functioning, cognitive development, and overall well-being. Research highlighting the benefits of physical activity in adult counselling practices further reinforces the value of integrating movement into school settings for children. Even something as simple as moving outdoors can significantly enhance the therapeutic relationship and positively impact the client. Ideally, offering children a choice of physical activities can maximize engagement and effectiveness. Notably, therapists have also reported personal benefits from including movement in sessions, creating a mutually beneficial dynamic. Moreover, even minimal physical activity has been shown to greatly improve mental health in severe cases marked by inactivity (de Souto Barreto, 2015), emphasizing that any movement is better than none.

Summary of Research

According to the British Columbia Association of Clinical Counsellors (2023) Code of Ethics, school counsellors are responsible for enhancing counselling practices and providing their clients with the best care possible. The "Responsibility to Society" section in the code of ethics encompasses C: Holistic Approach, D: Body of Knowledge, and F: Social Responsibility. Regarding a holistic approach, we must share knowledge and information collaboratively with the client's best interests in mind. Regarding the body of knowledge, counsellors should promote and advance ethical principles in research, professional, clinical, administrative, and educational activities (BCACC, 2023, p.13) to support the client. As a school counsellor, I intend to share the insights from this Capstone with fellow counsellors and professionals to foster the growth, development, and societal well-being of all children. Lastly, social responsibility mandates that counsellors leverage their "personal time and talents" to fulfill the profession's collective duty to society (BCACC, 2023, p.13). Given my privilege, athletic experience, and newly acquired knowledge, I feel responsible for utilizing my skills and expertise to support clients and educate others.

Additionally, according to the VSB (Vancouver School Board) Area Counsellors Handbook, the Area Counsellors' role is to "offer services that facilitate the educational, personal, social, and emotional development of students in elementary schools" (2022, p.5). Since physical activity improves all these domains, we should strive to incorporate movement into our daily practice as much as possible. Furthermore, school counsellors are a "resource for families and provide consultation for school staff" (2022, p.5). This responsibility also entails sharing the importance of movement and the dangers of prolonged sedentary behaviour, especially concerning excessive screen time. Ultimately, it could be argued that it is the

counsellor's responsibility to inform schools, families, and students of the daily physical activity requirements that are not being met, the excessive screen time practices, and the significant and severe sedentary behaviour that results in serious physical and mental health consequences globally.

Ultimately, as a school counselling profession, we can improve our advocacy for children's health by educating students, parents, teachers, administrators, and even school boards about the urgency and significance of the sedentary health pandemic. The initial steps in advocacy involve modelling an active lifestyle and incorporating activities into sessions whenever possible; this includes being active with students, such as walking and ideally engaging in a sport of the child's choice. In my specific case, given my experience coaching and playing various sports and teaching physical education for several years, it makes sense to integrate this into my practice. Not only is this logical, but according to the BCACC, it is a counsellor's responsibility to "leverage their personal time and talents to help meet the profession's collective responsibility to society" (2023, p.13).

Limitations. There are limitations to using walk-and-talk therapy. Weather, confidentiality, boundaries, limited resources, and learning new skills are possible limitations of this modality (Colley, 2020; Revell & McLeod, 2016). Colley et al. 's (2020) literature review mentions that confidentiality and maintaining boundaries can be challenging since there is less anonymity. Additionally, utilizing the outdoors instead of a closed-door setting means the client could be overheard, approached, or distracted during the session.

Several sources within Colley's (2020) review also acknowledge that the outdoors can be unpredictable and challenging to control (as cited in Colley, 2020). This includes varying weather conditions, the necessity for ensuring appropriate clothing and footwear for both parties

and a therapist's readiness for back-to-back appointments with different attire. The uncertainty of the outdoors, especially regarding the weather and potential unknowns about the chosen route, including people and animals, can be a challenge (Revell & McLeod).

Revell and McLeod (2016) found that a limitation of this practice was the need to develop new skills, which may not appeal to less active and athletic individuals. In a school setting, ideally, this practice would offer students choices and empower them to determine their actions. This suggests that the school counsellor may need to explore new approaches they might not be skilled in. Alternatively, walking with the client is a universally accessible option; however, White et al. (2017) noted that providing a choice is ideal.

Furthermore, moving and being outdoors can create a potential barrier for the counsellor due to limited access to resources (Revell & McLeod, 2016). For example, utilizing paper to draw scenarios, create genograms, take notes, or use a computer would all be challenging while moving. Furthermore, it may be essential to note that starting the first session outdoors and moving with the child before getting to know them may also be inappropriate. Although I acknowledge that incorporating physical activity may not always be appropriate for all students, especially those in crisis, simply providing the choice for movement would be an asset to the school counselling profession.

Next Steps. Chapter Three considers the next steps involved in advocating and educating about the issue by presenting it to classrooms, parents, teachers, and school districts. I have created a PowerPoint presentation tailored to these audiences to support this initiative. These presentations aim to inform and empower parents, teachers, students, administrators, and fellow counsellors to enhance the current system and improve the health of our students and society.

Chapter 3: Summary, Recommendations, Presentations, and Conclusions

Summary

Understanding this, why are school counselling models based on sedentary practice? During my internship, I was fortunate to work with three different mentors. Interestingly, all three modelled a sedentary approach involving sitting and talking in a room for up to an hour. Although this is not true for everyone, among the people I spoke to in my program, this was also the case for them. The benefits of movement in adults and children have been extensively mentioned above, including evidence showing that the problem has worsened since the COVID-19 pandemic. The advantage is clear, but the problem persists.

The link between increased sedentary time and screen usage, along with rising mental health concerns, cannot be coincidental. As school counsellors, we must advocate for the whole child, supporting their psychological and physical well-being. Recognizing the connection among these factors- mental health, physical health, sedentary behaviour, and screen time- while still employing sedentary strategies appears counterintuitive and somewhat negligent. Addressing this issue can be accomplished by integrating physical activity into counselling practices, modelling active lifestyles, providing more opportunities for children, and educating others about the current sedentary epidemic.

Recommendations

Incorporating Physical Activity. The research and evidence in this Capstone inspire me as an educator, counsellor, and active individual to promote physical activity in schools and counselling in various ways, including in my practice and the education of others. In other words, it is my responsibility as a counsellor, now that I have a better understanding, to do better

and share this information with others. Consequently, as noted by Kohl et al. (2012), addressing the issue from a systems approach where everyone shares responsibility is crucial. From this perspective, schools and families must work together to reduce sedentary behaviour and maximize movement whenever possible. This means all school staff, including counsellors, can participate in the solution.

Integrating physical activity into various school programs, including counselling, provides a pathway to holistically support students while exemplifying the significance of physical activity and a healthy lifestyle. Since counsellors should be at the forefront of mental health advocacy, incorporating physical activity into their practice is a way to lead by example and subtly highlight the importance of movement in daily life and activities.

Modelling. Alongside the steps for increasing physical activity and reducing sedentary behaviour mentioned earlier, I intend to continue modelling an active and healthy lifestyle as a counsellor and offer opportunities for others. Coaching various sports throughout the school year will remain important to me. Moreover, creating opportunities for staff to be active will be a key component of my practice once I become a counsellor; for instance, launching a volleyball club for staff this year not only illustrates to students the importance of movement but has also encouraged overall activity, improved mood, and fostered social connections within the staff. I also aspire to create more movement opportunities for students and staff, such as running clubs and intramural sports. Continuing to exemplify a physically active lifestyle and implementing school- and district-wide initiatives will also be vital to my counselling practice.

Education. Enhancing physical activity within the counselling profession involves educating others. Informing and educating is also required in the Vancouver School Board; as the Counsellor Handbook states, “they are a resource for families and provide consultation for

school staff (Vancouver School Board, 2022, p.5)". Therefore, this chapter is brief because I have chosen to present lessons and presentations for students, teachers, families, and counsellors. These presentations can occur at the school or district levels with district counsellors. Creating a presentation with the essential information from this capstone provides me and other professionals with a straightforward method for sharing the importance of movement with various audiences.

While incorporating physical activity into practice is vital, educating others is even more important. Interestingly, a study by Breland found that although physical activity is known to significantly reduce depression, interestingly, when excessive screen time is involved, it is less effective (Breland et al., 2013). The concern here is that if excessive screen time is not managed, the benefits of physical activity may diminish. Therefore, while promoting and modelling physical activity within a counselling practice is essential, raising awareness about the impacts of excessive screen time and sedentary behaviour is equally, if not more, important. Thus, since physical activity cannot counteract excessive screen time, educating parents and students on screen time restrictions is necessary (Breland et al., 2013).

Presentations

The following list provides links to presentations I developed that are appropriate for various audiences. Additionally, the following link is a presentation encapsulating all of the research and presentations in one presentation. Capstone Chapter 3

Counsellors

Families

School Staff (Teachers and Support Staff)

Students

Future Considerations

Although physical activity is not the only important factor for good physical and mental health, this Capstone establishes it as a key component. While diet, stress, sleep, and other elements also play a role, starting with physical activity and counselling is a straightforward approach that can be pursued at the community, district, or institutional level. The next step for this Capstone is to create a presentation for government officials and policymakers. Engaging the government and addressing budget cuts to programming would enhance awareness of the ongoing sedentary and mental health crisis, instilling urgency for preventative measures rather than relying on the current reactive strategies.

Conclusion

The goal is to encourage school counsellors to adopt a more active, less sedentary approach to counselling and raise awareness about the importance of movement and the dangers of increased sedentary screen time for children. Sharing this information at the school level is a good start, but influencing district-level and institutional change would be beneficial. Furthermore, presenting this to university personnel to enhance awareness and understanding is also invaluable. While City University offers numerous opportunities to explore various counselling philosophies and modalities, incorporating the significance of movement into practice would be a constructive next step to begin motivating change at an institutional level.

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